

Amendments to the Claims

Please cancel Claims 1, 6, 11, 13, 17, 19, 22, 25, 26, 28, 35, 37 and 39-43. Claims 7-10 were previously canceled. Please amend Claims 2-5, 12, 14, 16, 18, 20, 23, 24, 27, 29-34, 36, 38 and 46-49. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Canceled)
2. (Currently amended) The antibody or antigen-binding fragment according to Claim 4 [[1]], wherein said antibody or antigen-binding fragment thereof inhibits one or more functions associated with binding of the ligand to the receptor.
3. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 4 [[1]], wherein the mammalian CC-chemokine receptor 4 (CCR4) is a human CC-chemokine receptor 4 (CCR4).
4. (Currently amended) An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The antibody or antigen-binding fragment thereof according to Claim 1,~~ wherein the antibody is selected from the group consisting of:
 - a) ~~monoclonal antibody 1G1;~~
 - b) ~~an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~
 - e) ~~monoclonal antibody 2B10;~~
 - d) ~~an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~
 - a e) monoclonal antibody 10E4;

- b) ~~f)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4); and
 - c) ~~g)~~ an antigen-binding fragment of ~~any one of (a) through (f) or b)~~ which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof.
5. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 4 [[1]], wherein the ligand is a chemokine.
- 6-11. (Canceled)
12. (Currently amended) A test kit for use in detecting the presence of a mammalian CC-chemokine receptor 4 (CCR4) or portion thereof in a biological sample comprising:
- a) at least one antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The test kit according to Claim 11,~~ wherein the antibody is selected from the group consisting of:
 - i) ~~monoclonal antibody 1G1;~~
 - ii) ~~an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~
 - iii) ~~monoclonal antibody 2B10;~~
 - iv) ~~an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~
 - i) ~~v)~~ monoclonal antibody 10E4;
 - ii) ~~vi)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - iii) ~~vii)~~ an antigen-binding fragment of ~~any one of (i) or (ii) through (vi)~~ which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
 - iv) ~~viii)~~ combinations of the foregoing [[.]];

and

b) one or more ancillary reagents suitable for detecting the presence of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof.

13. (Canceled)
14. (Currently amended) The method according to Claim 18 [[13]], wherein the cell is selected from the group consisting of lymphocytes, monocytes, granulocytes, T cells, basophils, and cells comprising a recombinant nucleic acid encoding CCR4 or a portion thereof.
15. (Previously presented) The method according to Claim 14, wherein the T cells are selected from the group consisting of CD8+ cells, CD25+ cells, CD4+ cells and CD45RO+ cells.
16. (Currently amended) The method according to Claim 18 [[13]], wherein the ligand is a chemokine.
17. (Canceled)
18. (Currently amended) A method of inhibiting the interaction of a cell bearing mammalian CC-chemokine receptor 4 (CCR4) with a ligand thereof, comprising contacting said cell with an effective amount of an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of said ligand to the receptor, and ~~The method according to Claim 13,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:
 - a) monoclonal antibody 1G1;
 - b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

- c) monoclonal antibody 2B10;
 - d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - e) monoclonal antibody 10E4;
 - f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - g) an antigen-binding fragment of any one of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
 - h) combinations of the foregoing.
19. (Canceled)
20. (Currently amended) A method of detecting expression of mammalian CC-chemokine receptor 4 (CCR4) or portion thereof by a cell or fraction of said cell, comprising:
- a) contacting a composition comprising a cell or fraction of said cell to be tested with an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor, under conditions appropriate for binding of said antibody or antigen-binding fragment thereof to a mammalian CCR4 or portion thereof; and
 - b) detecting binding of said antibody or antigen-binding fragment thereof, wherein the binding of said antibody or antigen-binding fragment thereof indicates the presence of said receptor or portion of said receptor on said cell, and ~~The method according to Claim 19,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:
 - i) monoclonal antibody 1G1;
 - ii) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - iii) monoclonal antibody 2B10;

- iv) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - v) monoclonal antibody 10E4;
 - vi) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - vii) an antigen binding fragment of any one of (i) through (vi) which binds mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
 - viii) combinations of the foregoing.
21. (Original) The method according to Claim 20, wherein the composition is a sample comprising human cells.
22. (Canceled)
23. (Currently amended) A method of detecting a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, comprising:
- a) contacting a sample to be tested with an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor under conditions appropriate for binding of said antibody or fragment thereof to said mammalian CCR4 or portion thereof; and
 - b) detecting or measuring binding of said antibody or antigen-binding fragment thereof, wherein the binding of said antibody or antigen-binding fragment thereof to material in said sample is indicative of the presence of a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor in said sample, and ~~The method according to Claim 22,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:
 - i) monoclonal antibody 1G1;
 - ii) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

- iii) monoclonal antibody 2B10;
 - ~~iv~~ ~~vi~~) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - v) monoclonal antibody 10E4;
 - vi) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - vii) an antigen-binding fragment of any one of (i) through (vi) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
 - viii) combinations of the foregoing.
24. (Currently amended) The method according to Claim 23 ~~[[22]]~~, wherein the sample is a cellular fraction which, in normal individuals, comprises a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor.
25. (Canceled)
26. (Canceled)
27. (Currently amended) A method of inhibiting a function associated with binding of a chemokine to a mammalian CC-chemokine receptor 4 (CCR4) or a functional portion of said receptor, comprising contacting a composition comprising the receptor or portion with an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or fragment inhibits binding of said chemokine to mammalian CC-chemokine receptor 4 (CCR4) and inhibits one or more functions associated with binding of the chemokine to the receptor, and ~~The method according to Claim 25,~~ wherein the antibody or antigen-binding fragment is selected from the group consisting of:
- a) monoclonal antibody 1G1;
 - b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

- c) monoclonal antibody 2B10;
 - d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - e) monoclonal antibody 10E4;
 - f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - g) an antigen-binding fragment of any of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
 - h) combinations of the foregoing.
28. (Canceled)
29. (Currently amended) A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof, comprising combining:
- a) an agent to be tested;
 - b) an antibody or antigen-binding fragment which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The method according to Claim 28,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:
 - i) ~~a)~~ monoclonal antibody 1G1;
 - ii) ~~b)~~ an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - iii) ~~c)~~ monoclonal antibody 2B10;
 - iv) ~~d)~~ an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - v) ~~e)~~ monoclonal antibody 10E4;
 - vi) ~~f)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

- vii) g) an antigen-binding fragment of any of (i) (a) through (vi) (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
- viii) h) combinations of the foregoing;

and

- c) a composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment to said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment to said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.

30. (Currently amended) The method according to Claim 29 [[28]], wherein the formation of a complex between said antibody or antigen-binding fragment and said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.
31. (Currently amended) The method according to Claim 29 [[28]], wherein the composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof is a cell bearing recombinant CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.
32. (Currently amended) The method according to Claim 29 [[28]], wherein the composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof is a membrane fraction of said cell bearing recombinant CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.
33. (Currently amended) The method according to Claim 29 [[28]], wherein the antibody or antigen-binding fragment thereof is labeled with a label selected from the group

consisting of a radioisotope, spin label, antigen label, enzyme label, fluorescent group and chemiluminescent group.

34. (Currently amended) The method according to Claim 29 [[28]], wherein the agent is an antibody having specificity for a mammalian CC-chemokine receptor 4 (CCR4) or antigen-binding fragment thereof.
35. (Canceled)
36. (Currently amended) The method according to Claim 38 [[35]], wherein the ligand is a chemokine.
37. (Canceled)
38. (Currently amended) A method of inhibiting leukocyte trafficking in a patient, comprising administering to the patient a composition comprising an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor. ~~The method according to Claim 35,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:
 - a) monoclonal antibody 1G1;
 - b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - c) monoclonal antibody 2B10;
 - d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);
 - e) monoclonal antibody 10E4;
 - f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

- g) an antigen-binding fragment of any of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and
- h) combinations of the foregoing.

39-43. (Canceled)

- 44. (Original) The 10E4 hybridoma cell line deposited under ATCC Accession No. PTA-1203.
- 45. (Previously presented) A monoclonal antibody produced by the 10E4 hybridoma cell line deposited under ATCC Accession No. PTA-1203 or an antigen-binding fragment thereof.
- 46. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 5 [[6]], wherein the chemokine is TARC or MDC.
- 47. (Currently amended) The method according to Claim 18 [[17]], wherein the chemokine is TARC or MDC.
- 48. (Currently amended) The method according to Claim 27 [[26]], wherein the chemokine is TARC or MDC.
- 49. (Currently amended) The method according to Claim 36 [[37]], wherein the chemokine is TARC or MDC.